CLAIMS:

1. A biochemical analyzing method comprising the steps of

fixing probes selected in advance on a substrate,

binding a target with the probes using a specific binding reaction to capture the target,

fractionating the captured target, detecting the fractionated target, and

quantitatively analyzing the detected target.

2. A biochemical analyzing method in accordance with Claim 1, wherein the target is bound with the probes using hybridization.

3. A biochemical analyzing method in accordance with Claim 1, wherein the respective captured targets are electrophoresed, thereby being fractionated.

4. A biochemical analyzing method in accordance with Claim 3, wherein the respective captured targets are electrophoresed in a direction at an angle with the surface of the substrate, thereby being fractionated.

5. A biochemical analyzing method in accordance with Claim 4, wherein the respective captured targets are electrophoresed in gel adjacent to the substrate, thereby being fractionated.

6. A biochemical analyzing method in accordance with Claim 5, wherein the respective captured targets are electrophoresed in a block of gel adjacent to the substrate, thereby being fractionated.

7. A biochemical analyzing method in accordance with Claim 4, wherein the respective captured targets are electrophoresed in a plurality of capillaries adjacent to the substrate, thereby being fractionated.

8. A biochemical analyzing method in accordance with Claim 7, wherein the plurality of capillaries are filled with a material capable of forming a membrane filter or a gel.

9. A biochemical analyzing method in accordance with Claim 1, wherein the probes are spotted on the substrate and fixed thereon.

10. A biochemical analyzing method in accordance with Claim 9, wherein the probes are one-dimensionally spotted on the substrate to form a plurality of spots and are fixed thereon.

11. A biochemical analyzing method in accordance with Claim 9, wherein the probes are two-dimensionally spotted on the substrate to form a plurality of spots and are fixed thereon.

12. A biochemical analyzing method in accordance with Claim 1, wherein the target consists of a gene.

13. A biochemical analyzing method in accordance with Claim 1 which further comprises a step of labeling the target with a fluorescent substance.

14. A biochemical analyzing method in accordance with Claim 13, wherein the target is labeled with the fluorescent substance prior to binding the target with the probes.

15. A biochemical analyzing method in accordance with Claim 13, wherein the target is labeled with the fluorescent substance after the respective targets were fractionated.

16. A biochemical analyzing method in accordance with Claim 1 which further comprises a step of labeling the target with a labeling substance which generates chemiluminescent emission when it contacts a chemiluminescent substrate.

17. A biochemical analyzing method in accordance with Claim 16, wherein the target is labeled with a labeling substance which generates chemiluminescent emission when it contacts a chemiluminescent substrate prior to binding the target with the probes.

18. A biochemical analyzing method in accordance with Claim 16,

wherein the target is labeled with a labeling substance which generates chemiluminescent emission when it contacts a chemiluminescent substrate after the respective targets were fractionated.

19. A biochemical analyzing method in accordance with Claim 10, wherein the fractionated targets are two-dimensionally scanned and light released from the targets is detected, thereby performing quantitative analysis.

20. A biochemical analyzing method in accordance with Claim 10, wherein light released from the fractionated targets is face-like detected and quantitative analysis is performed.

21. A biochemical analyzing method in accordance with Claim 11, wherein the fractionated targets are three-dimensionally scanned and light released from the targets is detected, thereby performing quantitative analysis.

22. A biochemical analyzing method in accordance with Claim 3, wherein targets electrophoresed to positions in accordance with the kinds of the targets are quantified and analyzed.

23. A biochemical analysis unit comprising an electrophoresis section to which voltage can be applied and in which probes bound with a target using a specific binding reaction can be electrophoresed in a depth direction thereof.

24. A biochemical analysis unit in accordance with Claim 23, wherein the electrophoresis section is constituted so that the probes bound with a target using hybridization or antigen-antibody reaction can be electrophoresed therein in a depth direction thereof.

25. A biochemical analysis unit in accordance with Claim 23, wherein the electrophoresis section includes gel.

26. A biochemical analysis unit in accordance with Claim 25, wherein

the electrophoresis section is constituted as a block of gel.

27. A biochemical analysis unit in accordance with Claim 23, wherein the electrophoresis section is provided with a plurality of capillaries.

28. A biochemical analysis unit in accordance with Claim 27, wherein the plurality of capillaries are filled with a material capable of forming a membrane filter or a gel.

29. A biochemical analysis unit in accordance with Claim 23 which further comprises a substrate on which at least one kind of probe can be fixed.

30. A biochemical analysis unit in accordance with Claim 29, wherein the substrate is constituted so as to bind the at least one kind of probe fixed thereon with a target using a specific binding reaction.

31. A biochemical analysis unit in accordance with Claim 30, wherein the substrate is constituted so as to bind the at least one kind of probe fixed thereon with a target using hybridization or antigen-antibody reaction.

32. A biochemical analysis unit in accordance with Claim 30, wherein the substrate and the electrophoresis section are constituted so that the at least one kind of probe fixed on the substrate and bound with the target can be electrophoresed in the electrophoresis section.

33. A biochemical analysis unit in accordance with Claim 32, wherein the substrate is formed with a plurality of membrane filters each being in contact with the electrophoresis section.

34. A biochemical analysis unit in accordance with Claim 33, wherein the plurality of membrane filters are formed one-dimensionally.

35. A biochemical analysis unit in accordance with Claim 33, wherein the plurality of membrane filters are formed two-dimensionally.

36. A target detecting apparatus comprising at least one laser

stimulating ray source, a stage on which a biochemical analysis unit can be placed, a scanning mechanism for three-dimensionally scanning and stimulating the biochemical analysis unit with a laser beam emitted from the at least one laser stimulating ray source, a light detector for photoelectrically detecting light released from the biochemical analysis unit, and a confocal optical system for leading light released from the biochemical analysis unit to the light detector.

37. A target detecting apparatus comprising at least one laser stimulating ray source, a stage on which a biochemical analysis unit can be placed, a scanning mechanism for two-dimensionally scanning and stimulating the biochemical analysis unit with a laser beam emitted from the at least one laser stimulating ray source, a light detector for photoelectrically detecting light released from the biochemical analysis unit, and a confocal optical system for leading light released from the biochemical analysis unit to the light detector.

38. A target detecting apparatus in accordance with Claim 36, wherein the at least one laser stimulating ray source is constituted as a femtosecond pulse laser stimulating ray source.

39. A target detecting apparatus in accordance with Claim 37, wherein the at least one laser stimulating ray source is constituted as a femtosecond pulse laser stimulating ray source.

40. A biochemical analysis apparatus comprising

means for fixing probes selected in advance on a substrate,

means for binding the probes with targets using a specific binding reaction and capturing them,

means for fractionating the captured targets,

means for detecting the fractionated targets, and

means for quantitatively analyzing the detected targets.

41. A biochemical analysis apparatus in accordance with Claim 40, which includes the means for binding the probes with targets using hybridization or antigen-antibody reaction.